FIG. 1

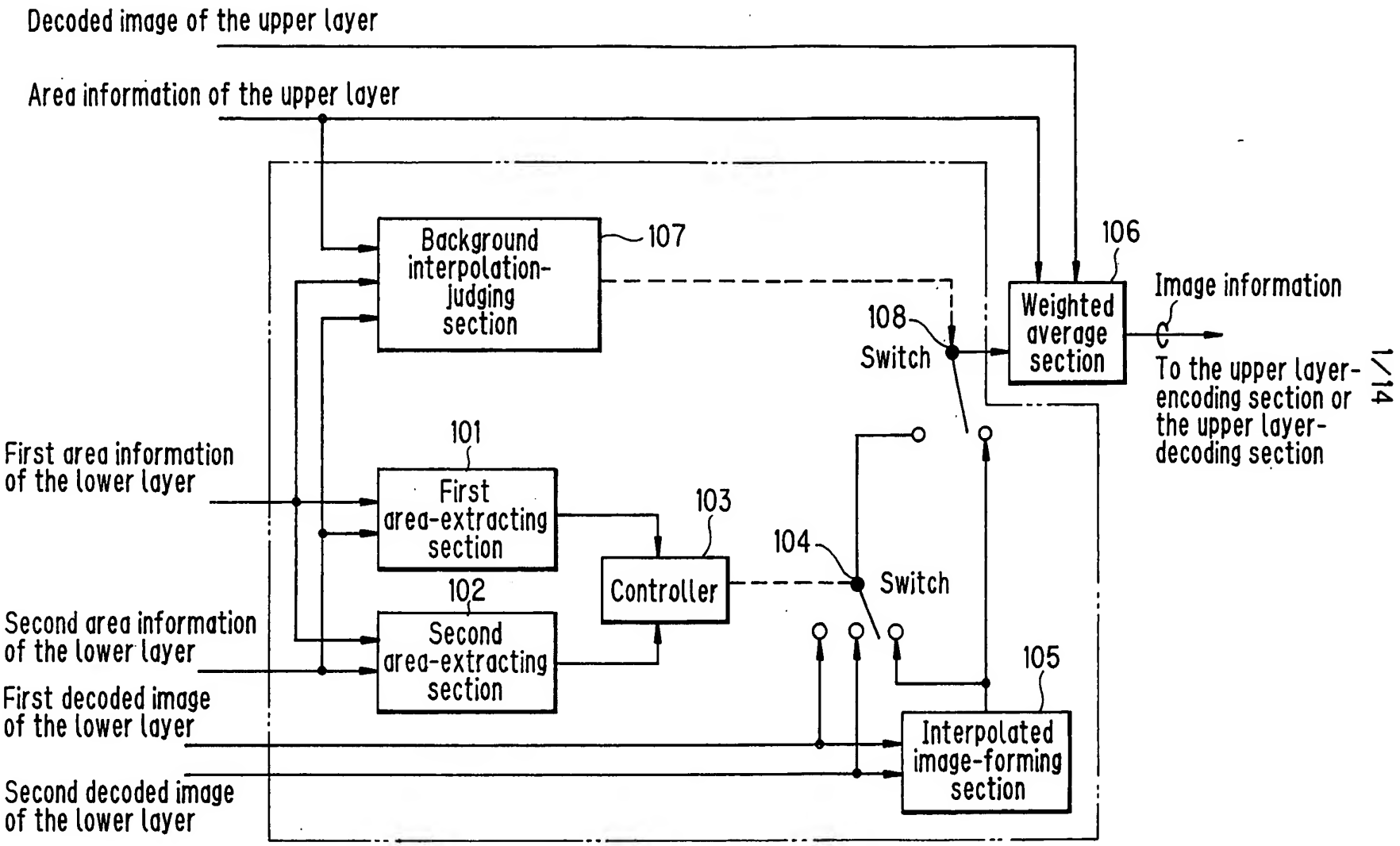

Decoded image of the upper layer
Area information of the upper layer
Background interpolation-judging section
107
106
Weighted average section
Image information
108
Switch
To the upper layer-encoding section or the upper layer-decoding section
101
First area information of the lower layer
First area-extracting section
103
Controller
104
Switch
102
Second area information of the lower layer
Second area-extracting section
105
First decoded image of the lower layer
Interpolated image-forming section
Second decoded image of the lower layer

FIG. 2

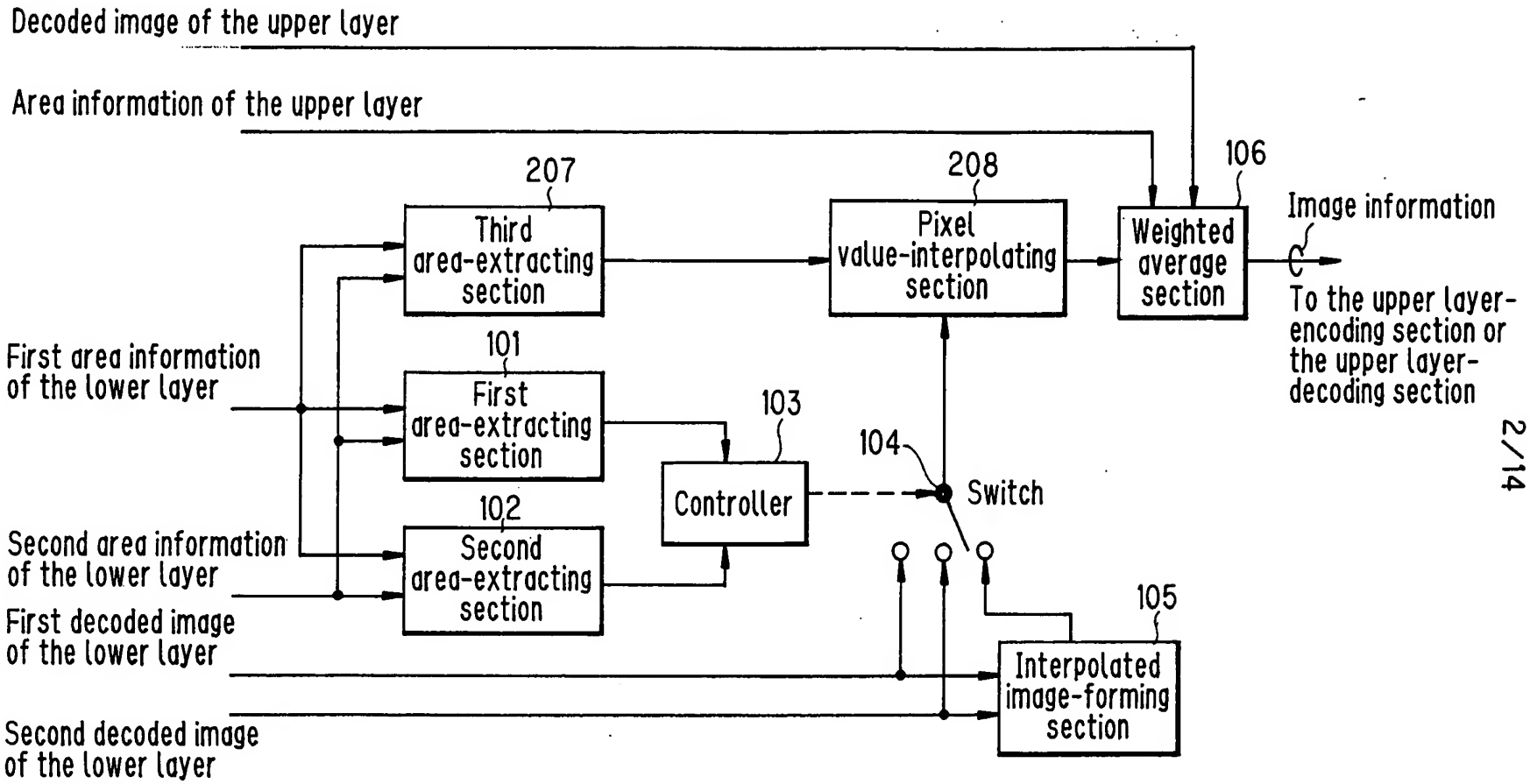

Decoded image of the upper layer
Area information of the upper layer
207
Third area-extracting section
208
Pixel value-interpolating section
106
Weighted average section
Image information
To the upper layer-encoding section or the upper layer-decoding section
First area information of the lower layer
101
First area-extracting section
103
Controller
104
Switch
102
Second area-extracting section
Second area information of the lower layer
First decoded image of the lower layer
105
Interpolated image-forming section
Second decoded image of the lower layer

FIG. 3

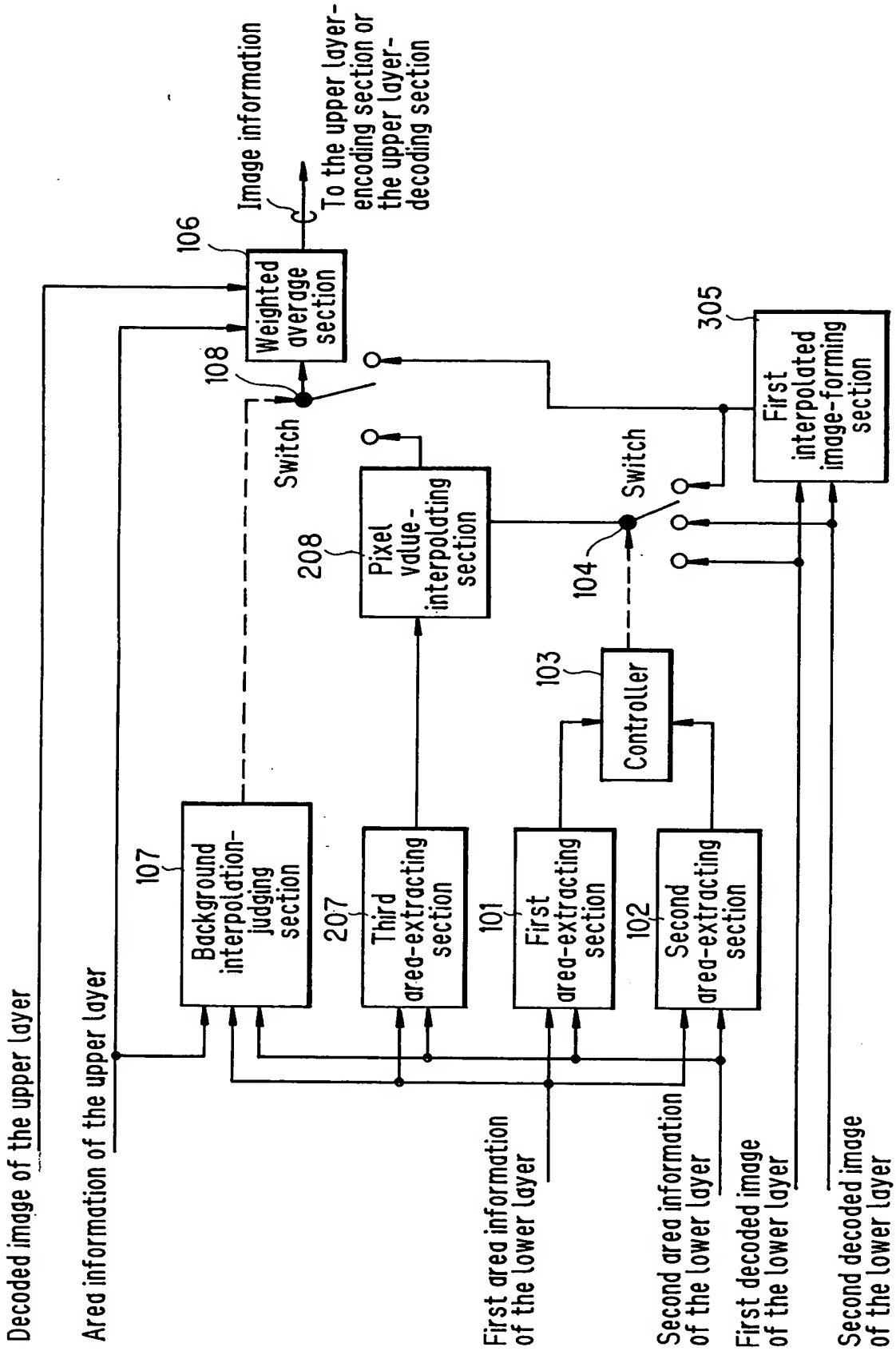

Decoded image of the upper layer
Area information of the upper layer
Background interpolation-judging section
107
Third area-extracting section
207
First area-extracting section
101
Second area-extracting section
102
Controller
103
Switch
104
Pixel value-interpolating section
208
Switch
108
Weighted average section
106
Image information
To the upper layer-encoding section or the upper layer-decoding section
First interpolated image-forming section
305
First area information of the lower layer
Second area information of the lower layer
First decoded image of the lower layer
Second decoded image of the lower layer

FIG. 4

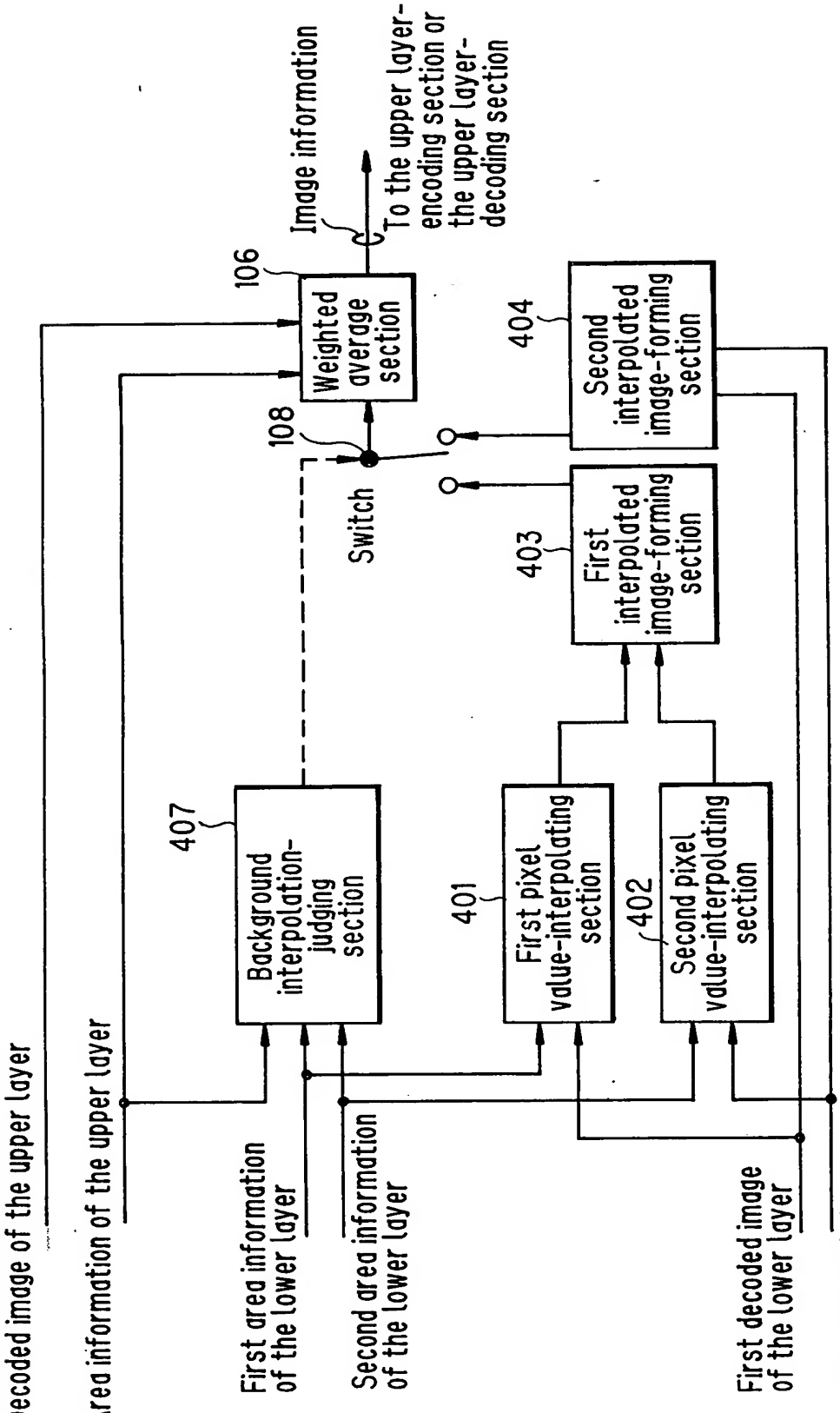

Decoded image of the upper layer
Area information of the upper layer
First area information of the lower layer
Second area information of the lower layer
First decoded image of the lower layer
Second decoded image of the lower layer
407
Background interpolation-judging section
401
First pixel value-interpolating section
402
Second pixel value-interpolating section
403
First interpolated image-forming section
404
Second interpolated image-forming section
108
Switch
106
Weighted average section
Image information
To the upper layer-encoding section or the upper layer-decoding section

FIG.5

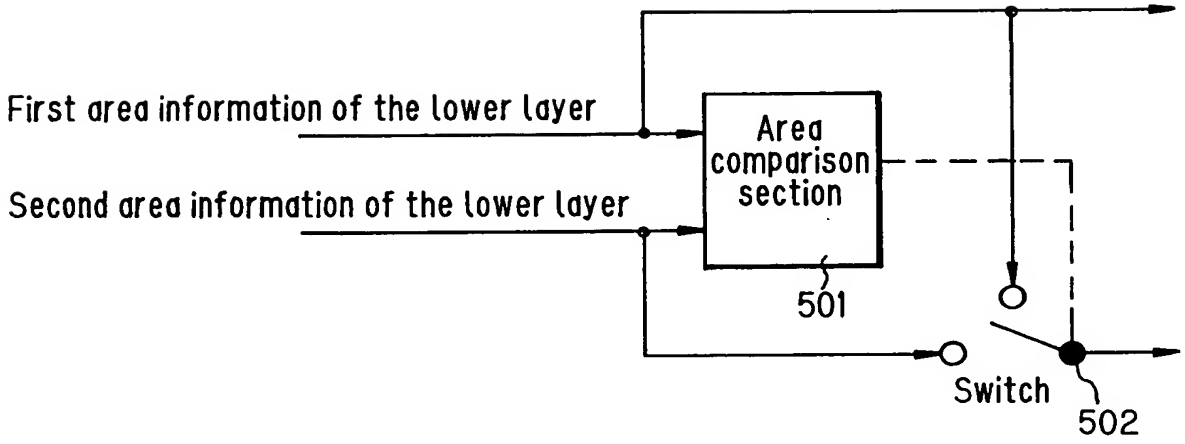

First area information of the lower layer
Second area information of the lower layer
Area comparison section
501
Switch
502

FIG.6

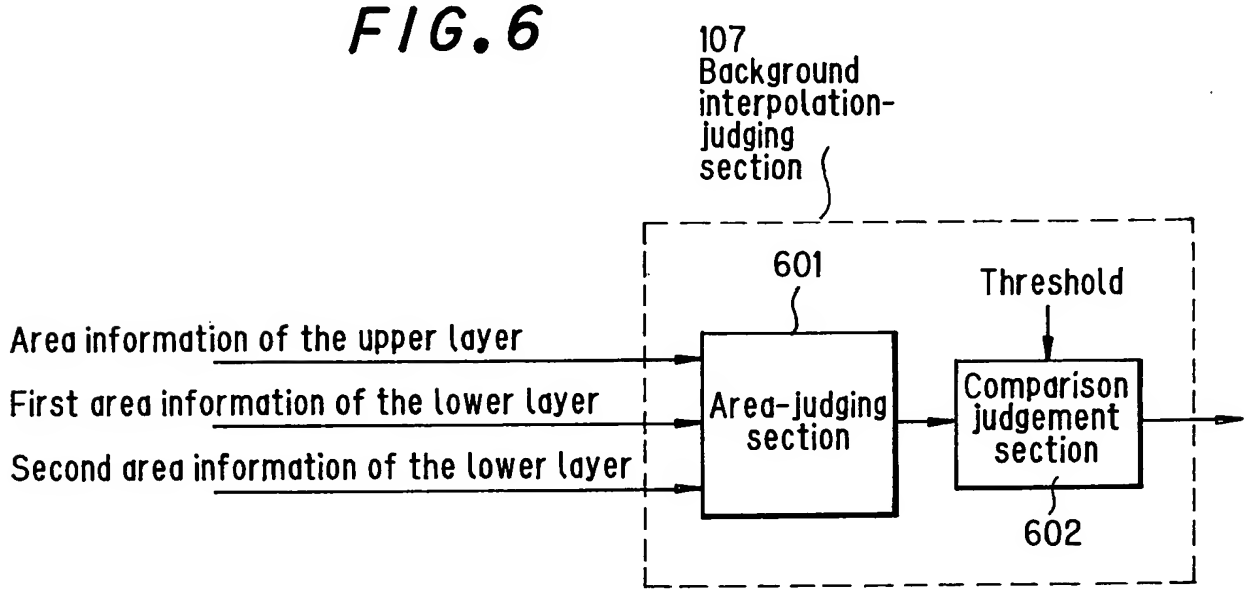

107
Background interpolation-judging section
601
Threshold
Area information of the upper layer
First area information of the lower layer
Second area information of the lower layer
Area-judging section
Comparison judgement section
602

FIG. 7

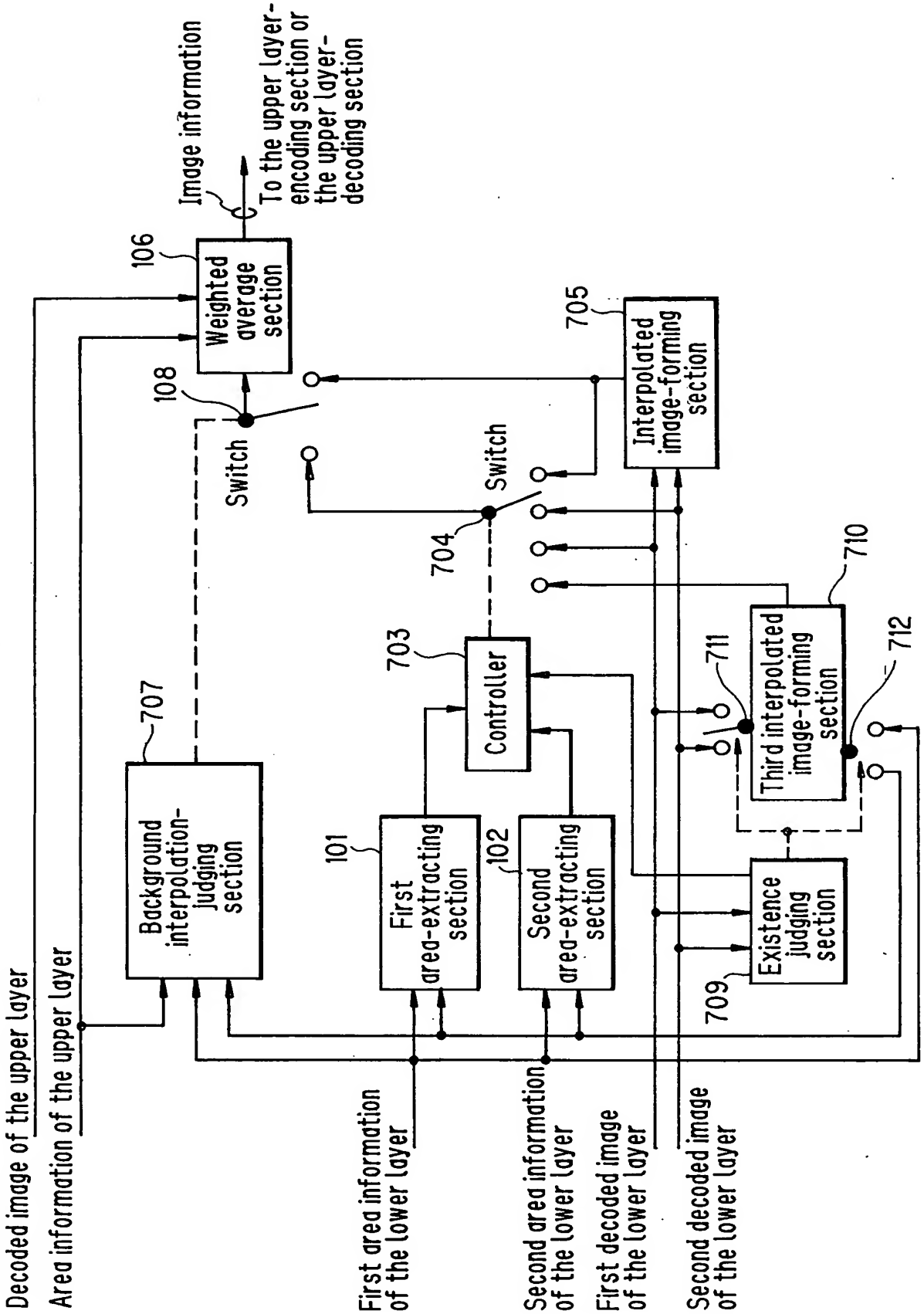

Decoded image of the upper layer
Area information of the upper layer
Image information
To the upper layer-encoding section or the upper layer-decoding section
106
Weighted average section
108
Switch
Switch
704
705
Interpolated image-forming section
703
Controller
707
Background interpolation-judging section
101
First area-extracting section
102
Second area-extracting section
711
710
Third interpolated image-forming section
712
709
Existence judging section
First area information of the lower layer
Second area information of the lower layer
First decoded image of the lower layer
Second decoded image of the lower layer

FIG. 8

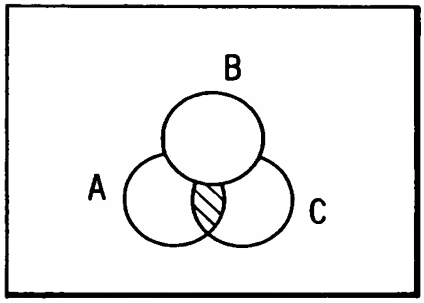


FIG. 9

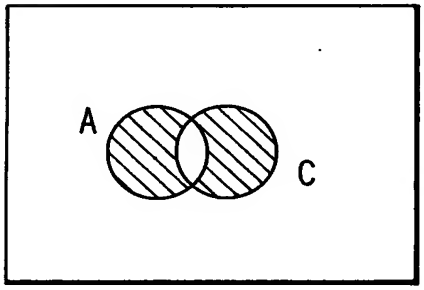


FIG. 10

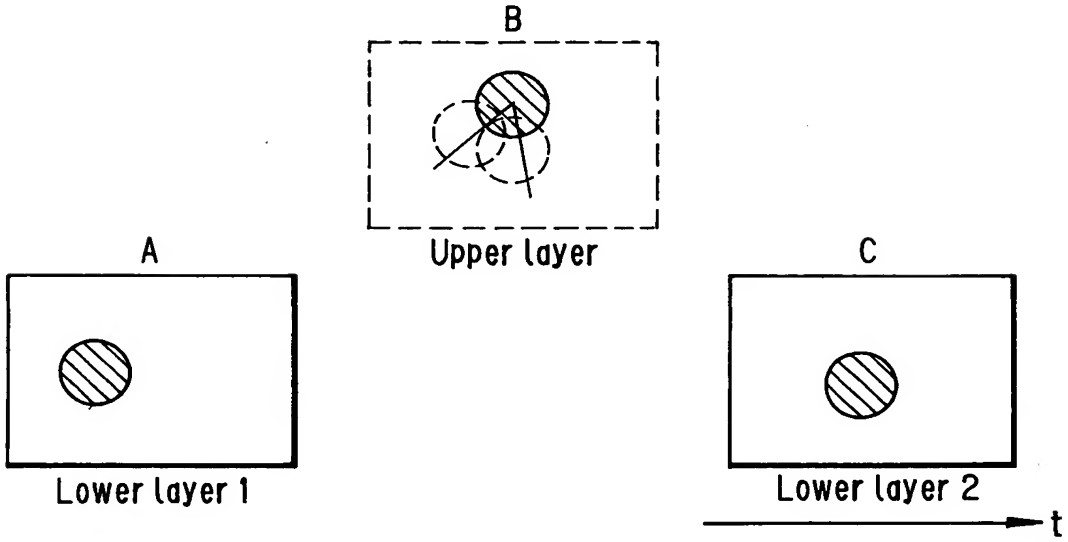


FIG. 11

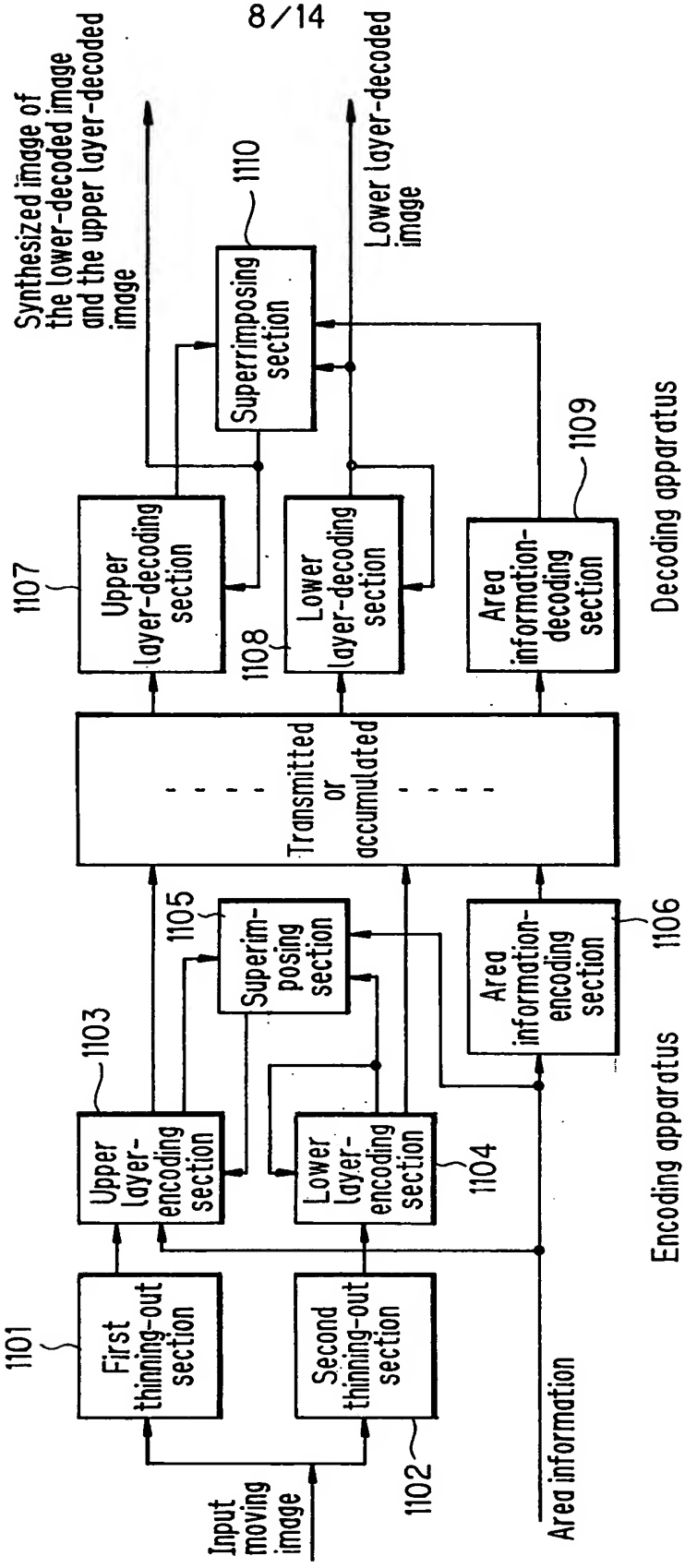

Input moving image
1101
First thinning-out section
1102
Second thinning-out section
1103
Upper layer-encoding section
1104
Lower layer-encoding section
1105
Superimposing section
Transmitted or accumulated
Area information
Area information-encoding section
1106
Encoding apparatus
1107
Upper layer-decoding section
1108
Lower layer-decoding section
1109
Area information-decoding section
Decoding apparatus
1110
Superimposing section
Synthesized image of the lower-decoded image and the upper layer-decoded image
Lower layer-decoded image

FIG. 12

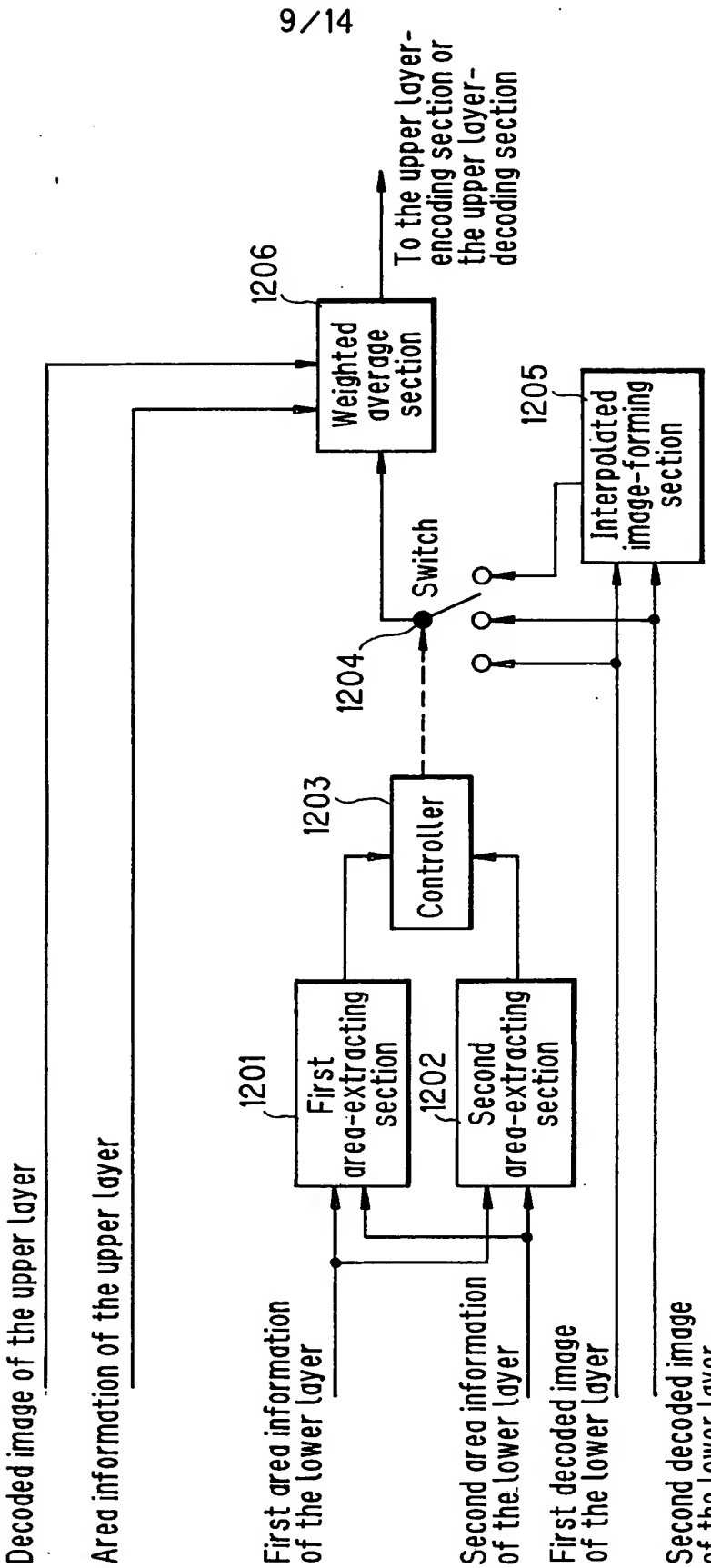
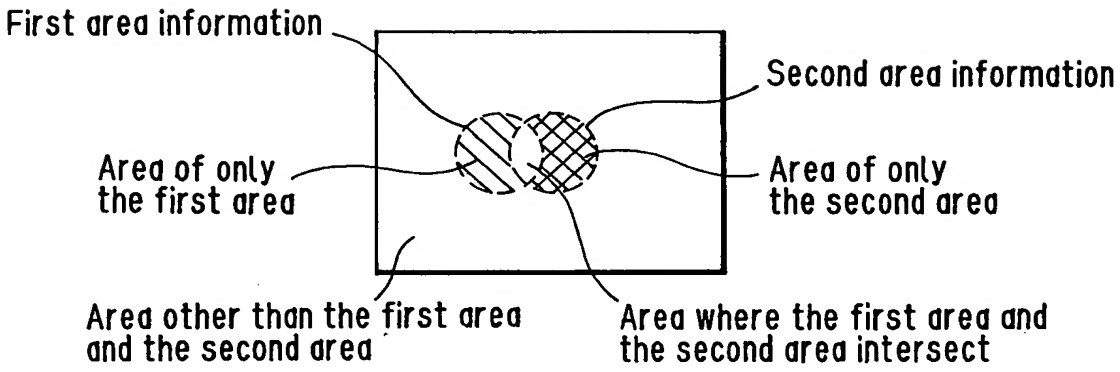

Decoded image of the upper layer
Area information of the upper layer
First area information of the lower layer
Second area information of the lower layer
First decoded image of the lower layer
Second decoded image of the lower layer
1201
First area-extracting section
1202
Second area-extracting section
1203
Controller
1204
Switch
1205
Interpolated image-forming section
1206
Weighted average section
To the upper layer-encoding section or the upper layer-decoding section

FIG. 13


First area information
Second area information
Area of only the first area
Area of only the second area
Area other than the first area and the second area
Area where the first area and the second area intersect

(a)

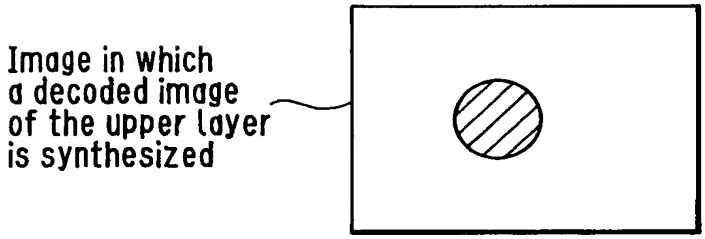
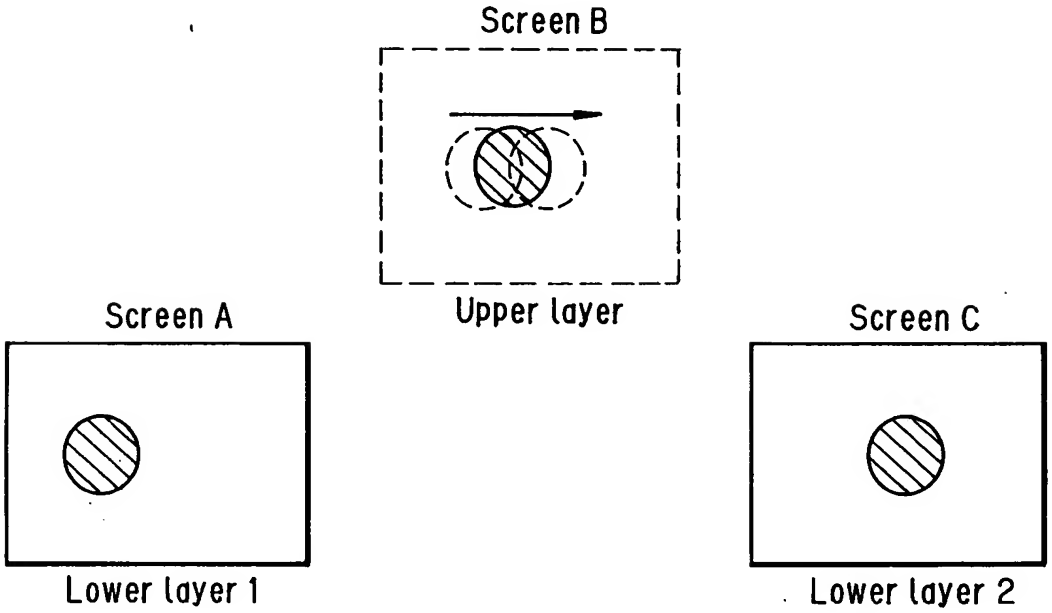


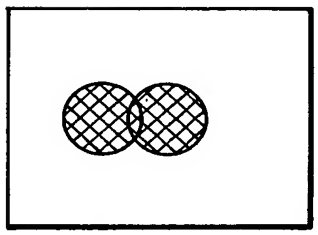
Image in which a decoded image of the upper layer is synthesized

(b)

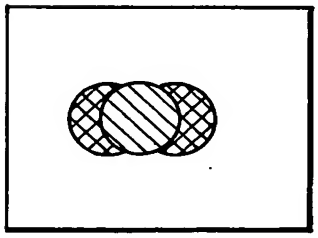
FIG. 14


Screen B
Upper layer
Screen A
Lower layer 1
Screen C
Lower layer 2

(a)



(b)



(c)

FIG. 15

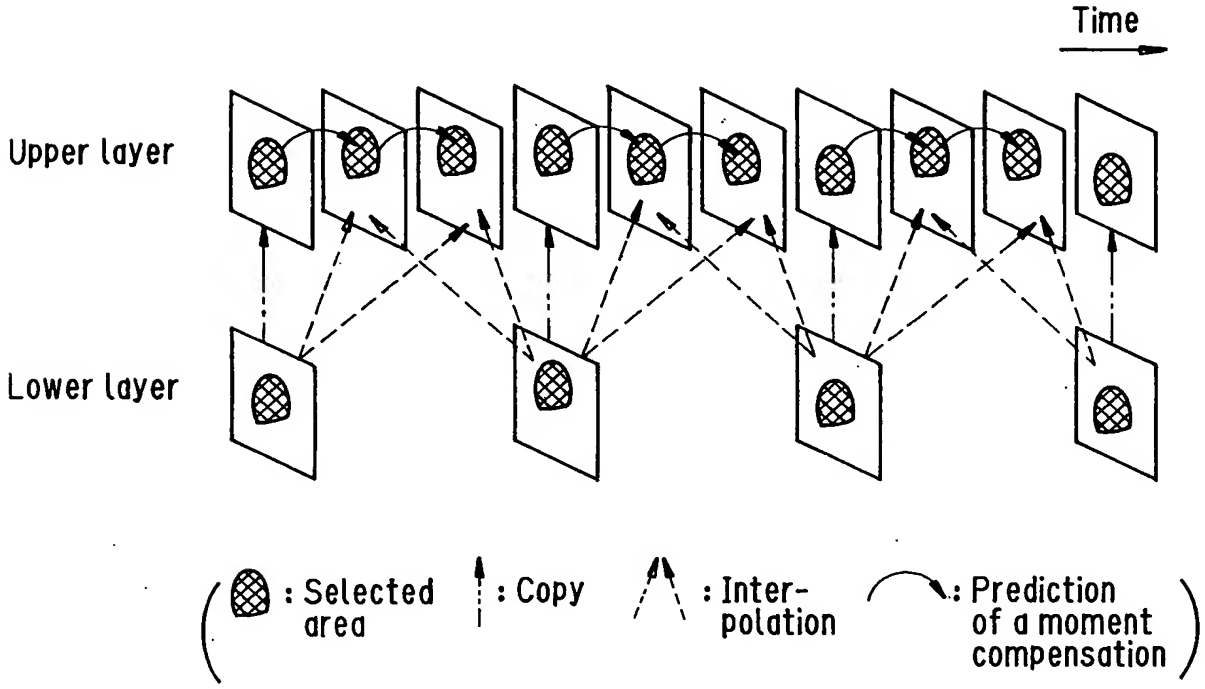

Time
Upper layer
Lower layer
: Selected area
: Copy
: Inter-polation
: Prediction of a moment compensation

FIG. 16

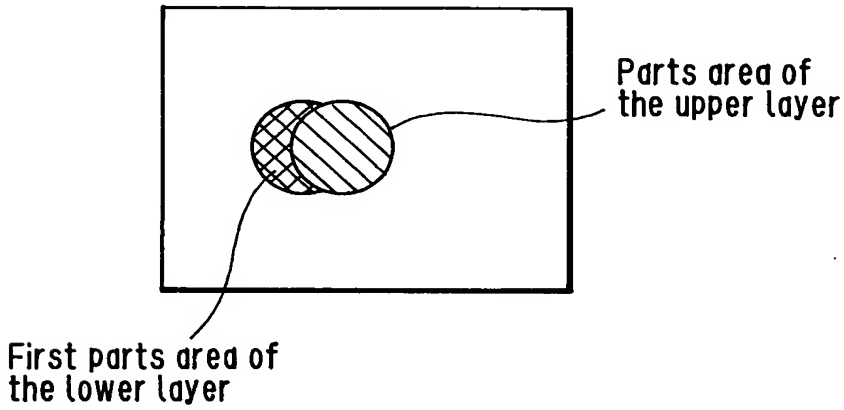

Parts area of the upper layer
First parts area of the lower layer

FIG. 17

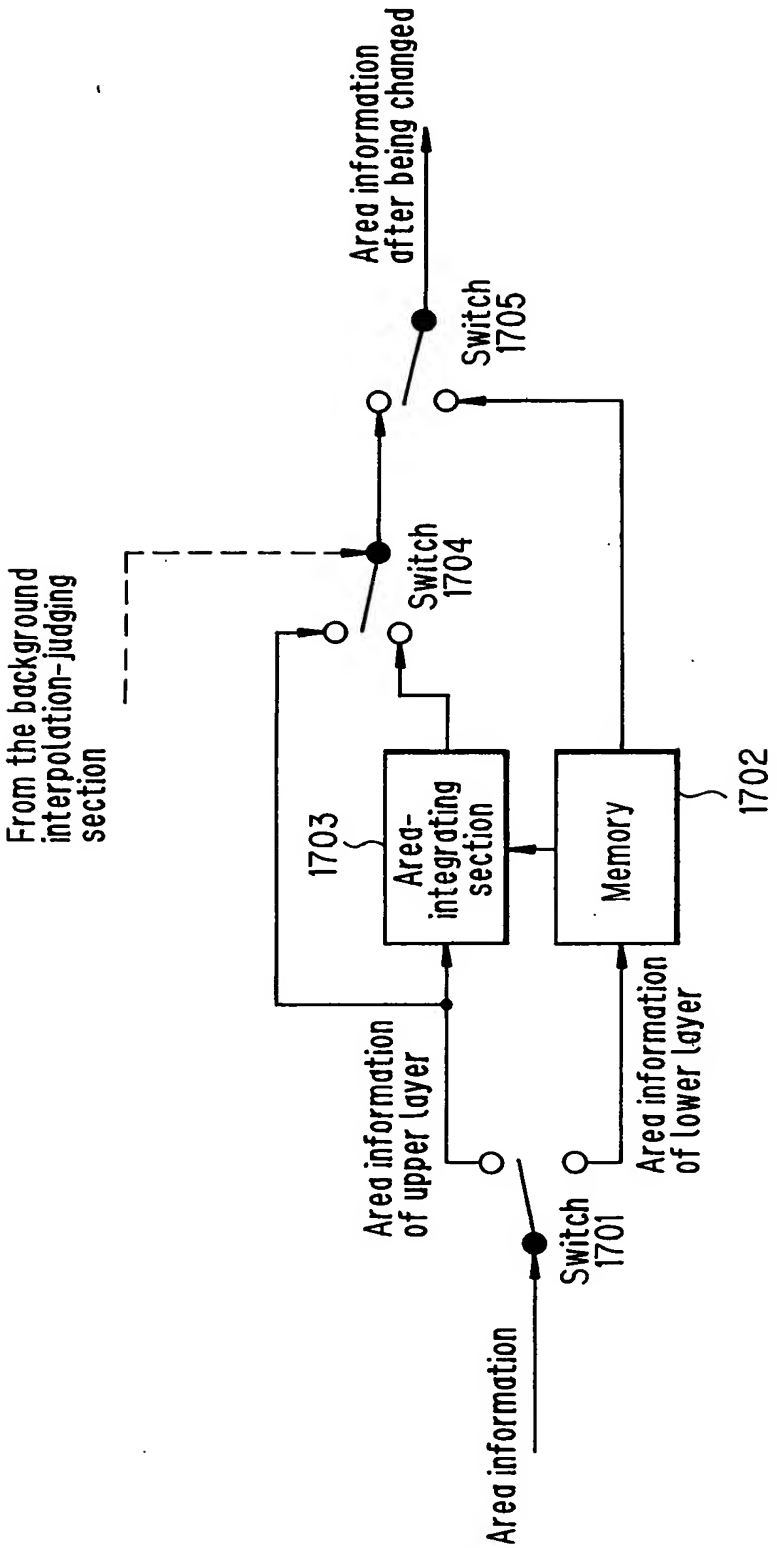
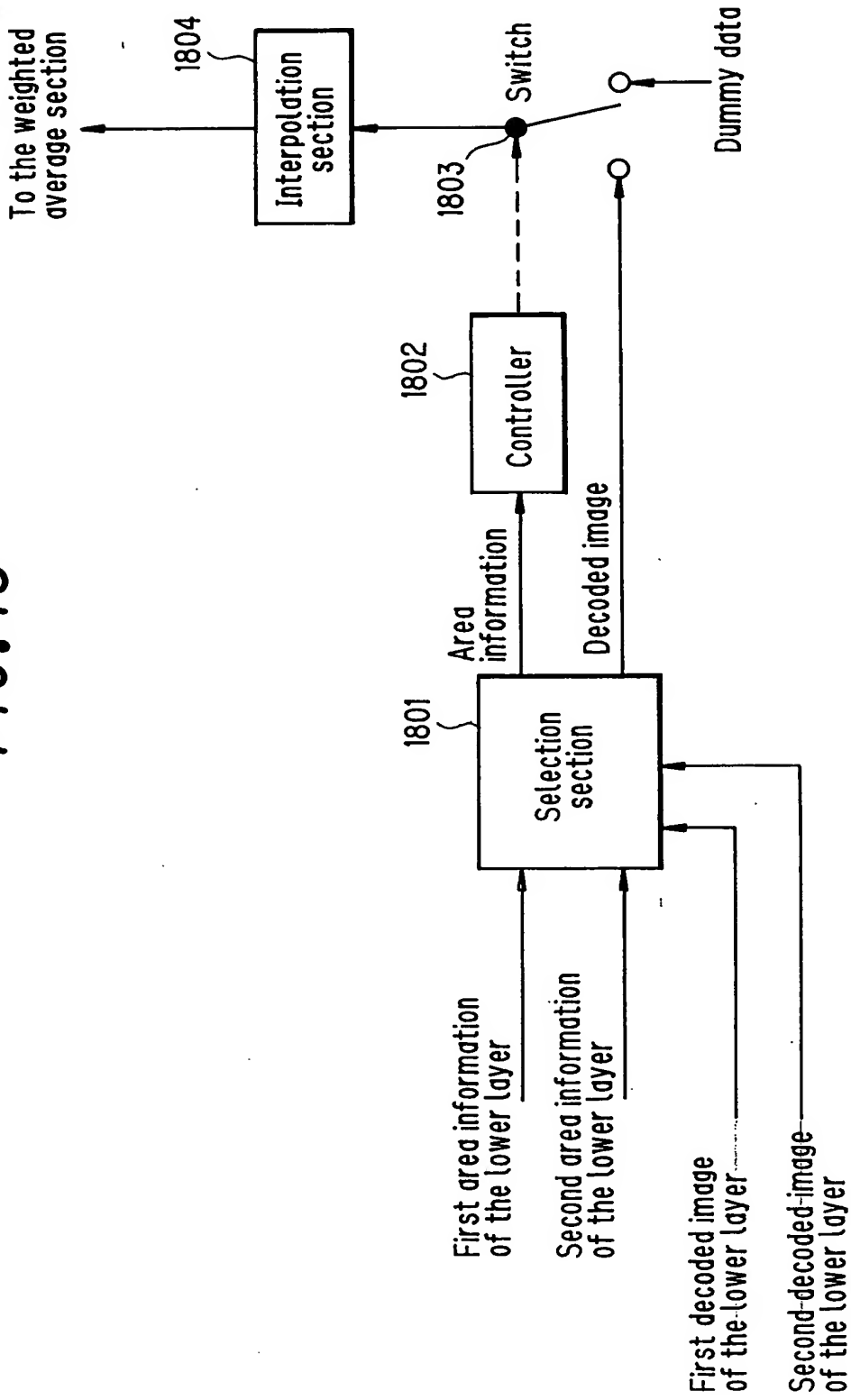

Area information after being changed
Switch 1705
From the background interpolation-judging section
Switch 1704
1703
Area-integrating section
Memory
1702
Area information of upper layer
Switch 1701
Area information of lower layer
Area information

FIG. 18


To the weighted average section
1804
Interpolation section
Switch
Dummy data
1803
1802
Controller
Area information
Decoded image
1801
Selection section
First area information of the lower layer
Second area information of the lower layer
First decoded image of the lower layer
Second decoded image of the lower layer